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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,913	12/03/2003	Gary F. Chard	TI-36899	4708

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EXAMINER	
NGUYEN, HIEP T	
ART UNIT	**PAPER NUMBER**
2187	

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/726,913	CHARD ET AL.	
	Examiner	Art Unit	
	Hiep T. Nguyen	2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 17-27* is/are rejected.

7)☒ Claim(s) *8-16 and 28* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-28 are presented for examination.

2. Applicant is required to provide the application number, when it become available, for the copending application cited in pages 1 and 12 of the specification

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

   A person shall be entitled to a patent unless –

   (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 and 17-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Traylor, U.S. Patent No. 5,473,756.

   a. As per claim 1: Traylor teaches an electronic device comprising:

      i. A memory structure comprising an integer M of word storage locations [col. 10. lines 35-37];

      ii. a write shift register for storing a sequence of bits, wherein the sequence in the write shift register comprises a number of bits equal to a ratio of 1/R1 times the integer M [col.10, lines 42-45];

      iii. circuitry for providing a write clock cycle (320) to the write shift register for selected write operations with respect to any of the word storage locations [figure 3A];

      iv. wherein in response to each write clock cycle, received from the circuitry for providing the write clock cycle, the write shift register shifts the sequence in the write shift register;

v. wherein one bit in the sequence in the write shift register corresponds to an indication of one of the memory word storage locations into which a word will be written;

vi. a read shift register for storing a sequence of bits, wherein the sequence in the read shift register comprises a number of bits equal to a ratio of 1/R2 times the integer M [col.10, lines 38-41];

vii. circuitry for providing a read clock cycle (319) to the read shift register for selected read operations with respect to any of the word storage locations [figure 3A];

viii. wherein in response to each read clock cycle, received from the circuitry for providing the read clock cycle, the read shift register shifts the sequence in the read shift register;

ix. wherein one bit in the sequence in the read shift register corresponds to an indication of one of the memory word storage locations from which a word will be read; and

x. circuitry [331-333; figure 3A] for evaluating selected bits in the sequence in the write register relative to selected bits in the sequence in the read register for detecting a level of data fullness in the memory structure [col. 10, lines 59-62].

xi. As per claims 2-3, the further claimed limitations are directly taught by Traylor [see co. 10, lines 35-46].

xii. As per claims 4-7 and 17-20, the further claimed limitations are also taught by Traylor [see col. 5, line 12 through col. 8, lines 67].

xiii. As per claims 21-27, the claimed method basically encompassed the steps that are carried out by the claimed elements in claims 1-7 and 17-20. Accordingly, Traylor also anticipates the claimed method.

Allowable Subject Matter

5. Claims 8, 12, 15, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Consequently. Claims 9-11, 13-14 and 16 would also be allowable over the prior art of record since they are depended on claims 8, 12, and 15, correspondingly. The claims would be allowable because none of the prior art of record teaches or fairly suggests the further claimed limitations in each of the claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
    a. Fenstermaker et al., 5,345,419, teaches a FIFO including read shift register and a write shift register.
    b. Knaack et al., 5,812,465, teaches a redundancy circuit and method for providing word lines driven by a shift register.
    c. Momtaz, 6,696,854, teaches a circuitry for implementing a FIFO structure.
    d. Lee et al., 6,857,043, teaches shift register implementations of FIFO memories utilizing a double increment gray code counter.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep T. Nguyen whose telephone number is (571) 272-4197. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:00 pm.
8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hiep T Nguyen
Primary Examiner
Art Unit 2187

HTN